Sound Laboratory

ZOOM

Handy Video Recorder Q2HD

User Guide

Safety and Operation Precautions must be read before using the unit.

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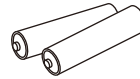
Items included with this product

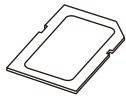
- **Q2HD unit**

- **2 AA batteries**
  (for testing the unit)

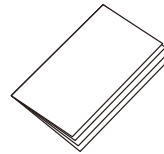


Note: Use alkaline batteries or rechargeable NiMH batteries.

- **SD card**



- **User Guide**
  (this manual)

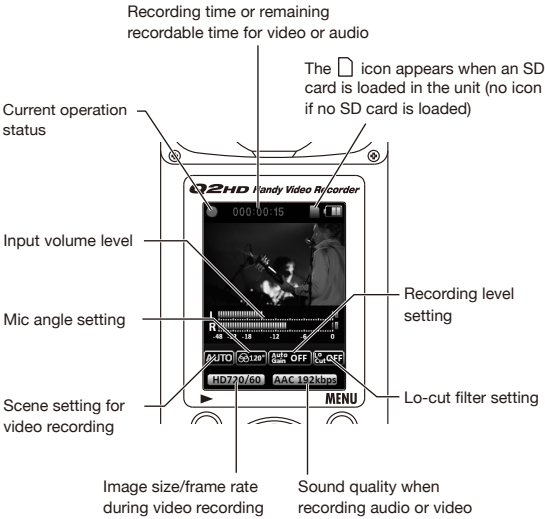


HandyShare software for video editing and sharing

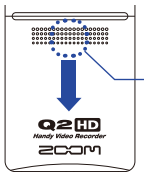
Install HandyShare on your computer to use it. Access the included SD card from the computer and double-click the HandyShare installer on it. If your computer does not already have QuickTime installed, follow the instructions that appear on your screen after starting HandyShare to install it.

Part functions

■ Parts of the unit


Recording time or remaining recordable time for video or audio
The icon appears when an SD card is loaded in the unit (no icon if no SD card is loaded)
Current operation status
Input volume level
Mic angle setting
Scene setting for video recording
Recording level setting
Lo-cut filter setting
Image size/frame rate during video recording
Sound quality when recording audio or video
Q2HD Handy Video Recorder
000:00:15
AUTO
120°
Auto Gain
OFF
Lo Cut OFF
HD720/60
AAC 192kbps
MENU

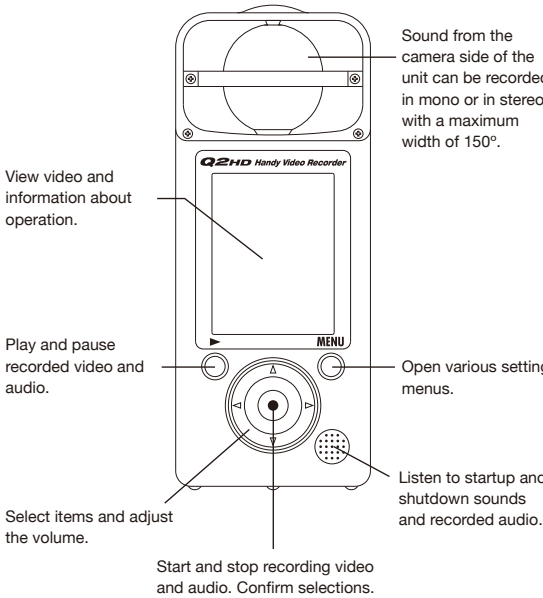
■ Installing batteries

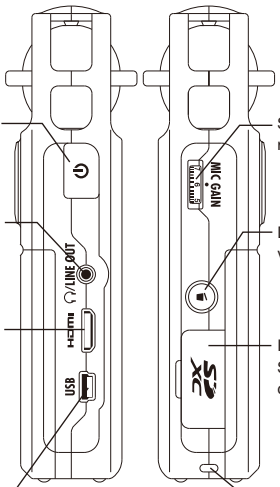


Open the case while pressing here and then install the batteries.

Note: Use alkaline batteries or rechargeable NiMH batteries.

■ Parts of the unit


Sound from the camera side of the unit can be recorded in mono or in stereo with a maximum width of 150°.
View video and information about operation.
Q2HD Handy Video Recorder
MENU
Play and pause recorded video and audio.
Open various setting menus.
Listen to startup and shutdown sounds and recorded audio.
Select items and adjust the volume.
Start and stop recording video and audio. Confirm selections.



Turn the power ON and OFF.

Output sound to headphones or other external equipment.

Output digital video and audio to an HDMI TV or other compatible device.

Set the mic recording level.

Delete recorded video and audio.

Insert an SD, SDHC or SDXC card into this slot.

Attach a strap to help prevent accidental dropping.

- Connect to a computer to power the recorder and use it as a card reader, USB mic or web camera.
- Connect to an iPad to use as a USB mic.
- A ZOOM AD-17 AC adapter (sold separately) can also be connected here.

Setting the date & time

The date and time are added to recorded video and audio files, so set it accurately before recording.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SETTING and press ●.
3. Use ▲▼ to select **Set Date** and press ●.
4. Use ▲▼◄► to set the current date and time.
5. After completing the setting, press MENU.

Setting the battery type

Set the battery type so that the amount of remaining battery life can be shown accurately.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SETTING and press ●.
3. Use ▲▼ to select **Battery** and press ●.
4. Use ▲▼◄► to set the battery type and press ●.
5. After completing the setting, press MENU.

Note: Use alkaline batteries or rechargeable NiMH batteries.

Formatting SD cards

You must format SD cards in the Q2HD to make them usable with the recorder.
Note: Formatting a card will permanently erase all data on it.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SETTING and press ●.
3. Use ▲▼ to select **SD Format** and press ●.
4. Use ◄► to select "**Yes**" to format or "**No**" to cancel and press ●.
   - Select "Yes" to start formatting.
   - Select "No" to return to the SETTING menu.
5. After formatting completes, "**Done**" appears on screen and the **SETTING** menu reopens.

NOTE

If the SD card's write-protection switch is ON, the card cannot be formatted.

Reducing noise

Turn the low-cut filter function on to reduce wind sounds and other noise.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select INPUT and press ●.
3. Use ▲▼ to select **Lo Cut** and press ●.
4. Use ▲▼ to select **On** or **Off** and press ●.
5. After completing the setting, press MENU.

NOTE

Use the windscreen included in the APQ-2HD accessory package to further reduce noise.

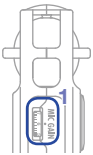
Turning sound monitoring on or off

Turn this on to listen to the sound being recorded through the line/headphones and HDMI outputs.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select INPUT and press ●.
3. Use ▲▼ to select **Sound Monitor** and press ●.
4. Use ▲▼ to select **On** or **Off** and press ●.
5. After completing the setting, press MENU.

Adjusting the recording level

By changing the recording level gain, you can record anything from quiet sounds to loud rock shows at the optimal level. You can set the gain manually or let the recorder set it automatically.



- Use the **MIC GAIN** dial to adjust the mic sensitivity to suit the recording conditions.

■ Using the Auto Gain setting

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select INPUT and press ●.
3. Use ▲▼ to select **Auto Gain** and press ●.
4. Use ▲▼ to set the mic sensitivity and press ●.

Off	Use the MIC GAIN dial to adjust manually.
Concert	Use for band performances, concerts and other loud situations.
Solo	Use for solo performances and other quiet situations.
Meeting	Use for meetings and other field recordings.

5. After completing the setting, press MENU.

Video scene setting

You can set the camera light sensitivity to suit the video recording conditions. This allows the unit to record video optimally even in dark places and on stages with bright lights.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SCENE and press ●.
3. Use ▲▼ to set the mode and press ●.

Auto	Adjusts to lighting conditions automatically.
Concert lighting	Best for concerts and other situations with bright lights.
Night	Best for nighttime and other dark situations.

4. After completing the setting, press MENU.

Setting the image quality

You can set the resolution and frame rate used for recording. The amount of available recording time decreases as the image quality is increased.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select VIDEO and press ●.
3. Use ▲▼ to select the video quality and frame rate and press ●.
4. After completing the setting, press MENU.

Setting	Resolution	Frames/second	Main uses	File size
HD1080/30	1920 x 1080	30	HD TV playback	Larger
HD720/60	1280 x 720	60	Recording fast movement	
HD720/30	1280 x 720	30	HD TV and computer playback	
WVGA/60	800 x 480	60	Saving SD card space and recording fast movement	
WVGA/30	800 x 480	30	Saving SD card space	Smaller

Setting the sound quality

You can set the sound quality to use for recording video and audio. The amount of available recording time decreases as the sound quality is increased.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SOUND and press ●.
3. Use ▲▼ to set the audio quality and press ●.
4. After completing the setting, press MENU.

Setting	Description	File size
PCM 96/24	Record in an uncompressed PCM WAV format when recording quality is important. The higher the sampling frequency (kHz) and bit rate values, the better the audio quality.	Larger
PCM 96/16		
PCM 48/24		
PCM 44.1/24		
PCM 48/16		
PCM 44.1/16		
AAC 320kbps	Record in a compressed AAC format when you need to save SD card space. The higher the bit rate (kbps) value, the better the audio quality.	
AAC 256kbps		
AAC 192kbps		
AAC 128kbps		
AAC 64kbps		Smaller

Setting the mic angle

You can set the stereo width recorded by the built-in stereo mic.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select MIC and press ●.
3. Use ◄► to set the mic angle.

MONO	
	Record in mono
30°, 60°, 90°, 120°, 150°	
	Record using the set stereo width

4. After completing the setting, press MENU.

NOTE

You can also use ◄► to set the mic angle while recording or using the USB mic function.

Recording audio and video

From the main operation screen, you can start recording audio or video by pushing a single button.

1. After preparing to record audio or video, press ● to start recording.

- To set whether to record video with audio or audio only, use [CAMERA] .

- Use ◄► to zoom in and out, and use ▲▼ to adjust the monitoring volume.

Zoom in and out

Adjust the volume

Audio only

2. After completing the setting, press ● to return to the main operation screen.

NOTE

If the transfer speed to the card is not fast enough during video/audio recording, "**Low Speed Card!**" appears on the screen and recording stops. To avoid this, we recommend using cards that are Class 4 or faster.
Information about SD cards that can be used with this unit can be found at www.zoom.co.jp.

Playing recordings

You can play back recorded audio and video.

1. When the main operation screen is open, press ▶.
2. If you want to play a different file, use ◀▶ to select it and press ▶.

Functions of other buttons

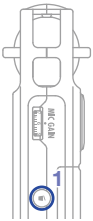
▲▼	Adjust the volume
◀▶	Press and hold during playback to search backward/forward.
▶	Press to pause during playback and restart when paused.

NOTE

- Only files that have been recorded with the Q2HD can be played back on it.
- During video playback, press and hold ▶ to show the video in landscape view. In this mode, use ◀▶ to adjust the volume and ▲▼ to search forward/backward. Press and hold ▶ again to return to vertical display.

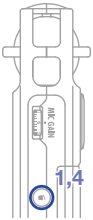
Deleting recordings

You can delete recorded video and audio files to increase the amount of open space on the media card.



1. Press ⓘ while the file that you want to delete is playing.
   - If you press this when on the main operation screen, the last recorded or played file will be selected for deletion.
2. When the confirmation screen opens, select “Yes” to delete the recording or “No” to cancel, and then press ⦿.

■ Deleting multiple recordings at the same time



1. Press ⊙ when on the main operation screen or while playing to show the “Delete this file?” message.
   - Press ⊙ again to open the file selection screen
2. Use ▲▼◄► to select a recording that you want to delete and press ●.
3. Repeat step 2 as many times as necessary to select more files to delete.
   - To delete all files on the card, press ►/○.
4. Press ⊙ when you are done selecting files.
5. When the confirmation screen opens, select “Yes” to delete the recordings or “No” to cancel, and then press ●.

Editing recordings

Recorded video and audio files can be divided and trimmed.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select FILE and press ●.
3. Thumbnails of the recorded files are shown. Use ▲▼◄► to select the file that you want to edit and press ●.
4. The editing menu opens. Use ▲▼ to select the item you want and press ●.
   - See the following page for the editing options.
5. After editing, a confirmation screen opens. Select "**Yes**" to execute the change or "**No**" to cancel, and then press ●.
6. When you are done editing, press MENU.

DIVIDE

◄► Change the file dividing point

▶ Play/pause

● Confirm the file dividing point

TRIM (partial deletion)

◄► Move trim points to set how much of the file beginning/end to delete

▲▼ Switch between beginning and end trim points

▶ Play/pause

● Confirm the trim points

INFORMATION (about the file)

MENU Return to the editing menu

Connecting external devices

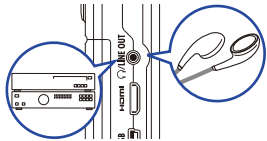
This unit can be connected to various external devices as needed.

■ Connect to a computer (by USB) to use as a card reader, USB mic or Web camera

Use a USB cable to connect to a computer or iPad.
See "Connecting by USB" on page 20.

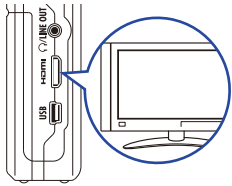
■ Listen with headphones or audio equipment (LINE OUT connection)

Use this connector when you want to use headphones or an external audio device's amplifier to listen. Turn monitoring on to listen through headphones to sound input during recording.
See "Turning sound monitoring on or off" on page 7.



■ View on a TV (HDMI connection)

Use an HDMI cable to connect the unit to an HDMI TV to view recordings in high definition.



NOTE

Some TVs might not support the audio format and correct playback might not be possible.

⚠ CAUTION

The Q2 HD HDMI uses a Type C Mini connector.
When using an HDMI cable (purchased separately), be sure to use a High Speed HDMI (category 2) cable that has a Type C Mini connector on one end to connect to the Q2 HD and a connector that matches your TV's HDMI input on the other.

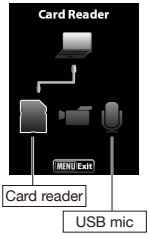
Connecting by USB

Connect with a computer using a USB cable to use this recorder as a card reader or USB mic. You can also use it as a web camera to stream video and audio. Connected to an iPad, you can use it as a USB mic.

NOTE

- When connected to a computer, power can be supplied by USB. The recorder will not turn on just by connecting the cable. Press ⏻ to turn it on.
- When connected to an iPad, power is not supplied by USB.

■ Using with a computer as a card reader or USB mic



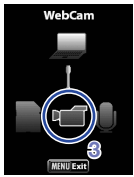
1. Connect the recorder to a Windows PC or Macintosh with a USB cable.
2. Press ⏻ to turn it on.
   - The USB operation screen will appear.
3. To use as a card reader, use ◄ ► to select the card icon and press ●.
   To use as a USB mic, select the mic icon and press ●.
   - The computer should recognize the recorder.
4. After you have finished using the recorder with the computer, disconnect it properly.
   - After use as a card reader, unmount the card reader volume from the computer before disconnecting the USB cable.
   - After use as a USB mic, just disconnect the USB cable.

NOTE

While using the recorder as a USB mic, you can use the functions and adjust the mic angle.

Connecting by USB (continued)

■ Using the recorder as a Web camera



1. Connect the recorder to a Windows PC or Macintosh with a USB cable.
2. Press ⏻ to turn it on.
   • The USB operation screen will appear.
3. Use ◄ ► to select the video icon and press ●.
4. After the Q2HD connects to the computer, you can use it as a web camera for video streaming and other applications.
5. When you have finished using the recorder with the computer, unmount the unit from the computer before disconnecting the USB cable.

NOTE

- The Q2HD can simultaneously transmit video and audio of up to HD720p and 48kHz/16bit WAV quality.
- Computer playback cannot be output from the Q2HD.
- A driver stored on the included SD card is necessary to use the unit as a web camera. (This driver can also be downloaded from www.zoom.co.jp.)
- When connected as a web camera, you can use the functions, set the scene type and adjust the mic angle. You cannot, however, change settings while streaming.

■ Delay setting

When using the recorder as a web camera, if the a streaming application does not have a lip synchronization function, use ◄ ► to set the audio delay so that it matches the timing of the video.

Using as a USB mic with an iPad

You can use this recorder as a USB mic by connecting it to an iPad using an Apple Camera Connection Kit.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select USB and press ●.
3. Use ◄► to select the mic icon and press ●.
4. Use the Apple Camera Connection Kit to connect the recorder with an iPad by USB cable.
   - The iPad should recognize the recorder.
5. When you have finished, disconnect the USB cable.

CAUTION

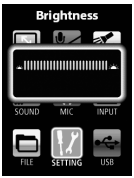
- If the Q2HD does not have batteries or enough remaining battery charge, it cannot be used as a USB mic with an iPad.
- While using the recorder as a USB mic, you can use INPUT functions and adjust the mic angle.

Display brightness/power saving

You can adjust the brightness of the display and set the screen to turn off automatically to save power.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SETTING and press ●.
3. Use ▲▼ to select **Backlight** and press ●.

■ Adjusting the display brightness



Brightness

4. Use ▲▼ to select **Brightness** and press ●.
5. Use ◄► to set the brightness and press MENU.

■ Set the power saving mode

Power saving

4. Use ▲▼ to select Power Saving and press ●.
5. Use ▲▼ to select **On** or **Off** and press ●.

NOTE

- When on, the display will darken if no operation has occurred for 30 seconds.
- When using an AC adapter, this setting is ignored.

Setting HDMI video output

Set the HDMI video output format to suit the TV.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SETTING and press ●.
3. Use ▲▼ to select **HDMI Out** and press ●.
4. Use ▲▼ to select **NTSC** or **PAL** and press ●.
5. After completing the setting, press MENU.

NOTE

NTSC is used in North America. Most other English-speaking regions use PAL.

Viewing information

You can check the firmware version and remaining recordable memory.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SETTING and press ●.
3. Use ▲▼ to select **Information** and press ●.
4. Check the information.
5. When you are done checking, press MENU.

Restoring default settings

You can reset the Q2HD settings, including the scene type and video and audio quality, to their factory defaults.

1. Press MENU to open the Main Menu.
2. Use ▲▼◄► to select SETTING and press ●.
3. Use ▲▼ to select **Reset** and press ●.
4. Use ◄► to select "**Yes**" to reset or "**No**" to cancel, and press ●.
5. After resetting completes, "**Done**" appears and the **SETTING** menu reopens.

Upgrading the firmware version

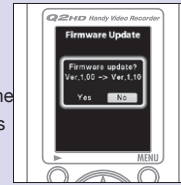
Upgrade the firmware version when necessary.

NOTE

You can check the firmware version using the **Information** item in the **Setting** menu.

- The latest version of the firmware can be downloaded from www.zoom.co.jp.

1. Copy the file for upgrading the firmware to the root directory on the SD card.
2. Insert the SD card into the unit's card slot.
3. While pressing and holding ▶, press ⏻ until the unit starts and the **FIRMWARE UPDATE** screen opens.
4. If the version upgrade shown is the one desired, select "**Yes**" and press ●.
5. When "**Complete!**" appears after the version upgrade completes, press ⏻ to turn the power off.



CAUTION

Upgrading the firmware version is not possible if the remaining battery power is low.

Safety and Operation Precautions

⚠ WARNING	**This indicates something that could cause serious injury or death.**
⚠ CAUTION	**This indicates something that could cause bodily injury or damage to property.**

Explanation of icons

❗	**This must be done.**
⃠	**This must not be done.**

⚠ WARNING

■ Power and batteries

- ❗ Use only a ZOOM AD-17 AC adapter (sold separately).
- ❗ Unplug the AC adapter when the unit will not be used for a long time.
- ❗ When using batteries, insert two commercially-available AA-size alkaline batteries or NiMH rechargeable batteries with the correct orientations.
- ❗ Remove batteries from the unit if they will not be used for a long time.

■ Handling

- ⃠ Do not disassemble or modify this device.

⚠ CAUTION

■ Operation environment

- ⃠ Do not use in places that become extremely hot or cold.
- ⃠ Do not use near heating devices or other sources of heat.
- ⃠ Do not use in places that are extremely humid or exposed to water.
- ⃠ Do not use in sandy or dusty places.
- ⃠ Do not use in places with frequent vibrations.

■ Handling

- ⃠ Do not apply excessive force to buttons or other moving parts.

You might need this User Guide in the future.
Always keep it in a place where you can access it easily.

FCC regulation warning (for U.S.A.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For EU Countries

CE

Declaration of Conformity:
This product complies with the requirements of
EMC Directive 2004/108/EC and
Low Voltage Directive 2006/95/EC and
RoHS Directive 2011/65/EU

Disposal of Old Electrical & Electronic Equipment (Applicable in European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

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ZOOM CORPORATION
4-4-3 Kanda-Surugadai, Chiyoda-ku, Tokyo 101-0062 Japan
www.zoom.co.jp

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